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EXAMINER

NGUYEN, VINH P

ART UNIT

PAPER NUMBER

2829

DATE MAILED: 09/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/972,622

Applicant(s)

BEAMAN ET AL.

Examiner

VINH P NGUYEN

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 44-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 44-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

1. It appears that the insertion on page 1 after the title and before the heading "Field of the Invention" appears to be inaccurate because the instant application is not related to other mentioned applications except for the U.S. application Serial Number 09/198,179. It appears that the instant application has a priority date of 11/23/98 instead of 04/30/93.

Therefore, the insertion on page 1 after the title and before the heading "Field of the Invention" should be "This application is a divisional application of U.S. Application Serial Number 09/198,179 filed on November 23, 1998, now issued as U.S. 6,332,270.". Correction is required.

2. Claims 1-15 and 44-58 are rejected under 35 U.S.C. 112, first paragraph, as Containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

It appears that the original specification does not support for the limitation of "a decoupling capacitor (2)" as recited in claims 5 and 48. Furthermore, it is unclear what is the function of this capacitor and how this capacitor is interrelated with the instant test probe. Therefore, the operation of this test probe is not well understood.

Furthermore, it appears that the limitation of "wherein said second contact locations have an elongated conductor attached thereon" does not have support in the specification.

3. Claims 4, 51 and 58 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 4, it is unclear what "a protuberance" represents. Is it shown in any of drawings?

Furthermore, it is unclear how the protuberance is interrelated and associated with the probe tips and the conductive members in claim 1.

In claim 51, it is unclear what "an elongated conductor" represents. Is it shown in any of drawings? Furthermore, it appears that the limitation of "wherein said second contact locations have an elongated conductor attached thereon" is inaccurate.

In claim 58, "said workpiece" has no antecedent basis.

4. Applicant's arguments filed on 07/01/03 have been fully considered but they are not persuasive.

Applicants argued that the prior art references of record do not meet the limitation of the instant claims because the instant application has a priority date of 04/30/93. Examiner disagrees with Applicants about this issue. It appears that the instant application has a priority date of 11/23/98 instead of 04/30/93 because the instant application is not related to other mentioned applications except for the U.S. application Serial Number 09/198,179 in which it has a filing date of 11/23/98. Therefore, the prior art references still meet the limitations of the instant claims since the instant application has a priority date of 11/23/98 instead of 04/30/93.

Furthermore, it appears that the "**decoupling capacitor**" as recited in claims 5 and 48 do not have original support in the parent application 09/198,179 filed on 11/23/1998, now Patent Number 6,332,270. Therefore the limitations of claims 5 and 48 are improperly claimed and these claims should be deleted.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-2,6-8,10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Motooka et al (Pat # 5,831,441).

As to claim 1, Motooka et al disclose in figure 7 an apparatus for testing semiconductor device (22) with a plurality of conductive contact locations (27) having a substrate (20) with first and second surface, a plurality of probe tips (24) disposed on a plurality of first contact locations on the first surface of the substrate (20). It is noted that each of the probe has an elongated electrically conductive member (24) projected from an enlarged base disposed on the first contact location. According to Motooka et al ,the workpiece is brought into contact with the probes, Motooka et al do not show moving means. However, it would have been old and well known in the art to recognize that Motooka et al inherently has moving means for moving the substrate into contact with the probe tips.

As to claim 2, it appears that the probe (24) is made of Gold (Au).

As to claim 6, it appears that the elongated member has a flattened end.

As to claims 7-8, it appears that the second surface (bottom surface) of the substrate (20)

has second contact locations in which elongated electrical conductors (25) are attached thereto.

As to claim 10, Motooka et al teach that it would have been well known in the art to provide a sheet of material (125) with a plurality of openings and this sheet is disposed over plurality of probe tips (124).

As to claim 11, it appears that the conductive member (24) has a first end disposed in contact with the enlarged base and the second end disposed in contact with an enlarged tip.

As to claims 12-13, it appears that the layer of material is disposed between the base and the tip and its openings are aligned with the probe tips.

As to claim 14, it appears that the openings in the layer are larger than the probe tip.

7. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Khandros (Pat # 5,476,211).

As to claim 1, Khandros disclose in figure 8 a substrate (10) with first and second surfaces, a plurality of probes (55,90) disposed on first electrical contact locations. It appears that the device of Khandros as shown in figure 8 is used for testing purpose. However, Khandros does not mention about the moving means for moving the substrate toward a workpiece so that the probes are in contact with the contact locations on the workpiece. It would have been old

and well known in the art to recognize that the device of Khandros would inherently include moving means (human operator) for move the substrate into contact with the workpiece.

As to claims 2-3, it appears that the wires are made of gold and this wire is also coated with Titanium (see column 10, lines 17-26 and column 17, lines 47-52).

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 44-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Khandros (Pat # 5,476,211).

As to claim 46, Khandros disclose in figure 8 a substrate (10) with first and second surfaces, a plurality of probes (55,90) disposed on first electrical contact locations. It appears that the device of Khandros as shown in figure 8 is used for testing purpose. However, Khandros does not mention about the moving means for moving the substrate toward a workpiece so that the probes are in contact with the contact locations on the workpiece. It would have been old and well known in the art to recognize that the device of Khandros would inherently include moving means (human operator) for move the substrate into contact with the workpiece.

As to claims 45-46, it appears that the wires are made of gold and this wire is also coated with Titanium (see column 10, lines 17-26 and column 17, lines 47-52).

10. Claims 44-45, 49-51, 53-57 are rejected under 35 U.S.C. 102(b) as being anticipated by over Motooka et al (Pat # 5,831,441).

As to claim 44, Motooka et al disclose in figure 7 an apparatus for testing semiconductor device (22) with a plurality of conductive contact locations (27) having a substrate (20) with first and second surface, a plurality of probe tips (24) disposed on a plurality of first contact locations on the first surface of the substrate (20). It is noted that each of the probe has an elongated electrically conductive member (24) projected from an enlarged base disposed on the first contact location.

As to claim 45, it appears that the probe (24) is made of Gold (Au).

As to claim 49, it appears that the elongated member has a flattened end.

As to claims 50-51, it appears that the second surface (bottom surface) of the substrate (20) has second contact locations in which elongated electrical conductors (25) are attached thereto.

As to claim 53, Motooka et al teach that it would have been well known in the art to

provide a sheet of material (125) with a plurality of openings and this sheet is disposed over plurality of probe tips (124).

As to claim 54, it appears that the conductive member (24) has a first end disposed in contact with the enlarged base and the second end disposed in contact with an enlarged tip.

As to claims 55-56, it appears that the layer of material is disposed between the base and the tip and its openings are aligned with the probe tips.

As to claim 57, it appears that the openings in the layer are larger than the probe tip.


11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VINH P. NGUYEN whose telephone number is (703) 305-4914.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4900.


VINH P. NGUYEN
PRIMARY EXAMINER
ART UNIT 2829

09/08/03